

Applicants : Douglas E. Olson et al.
Serial No. : 09/600,204
Page : 2 of 10

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the present application:

Claim 1 (currently amended) A mail container postal dispatch system which dispatches randomly arranged containers of sorted mail to particular dispatch carts, said postal dispatch system comprising:

EW a sortation conveyor having a main conveying line defined by a conveying surface that conveys randomly arranged containers of sorted mail, ~~said conveying surface comprising at least one of conveyor rollers and a conveying belt;~~

a plurality of spurs extending ~~generally horizontally from at least one side of said main line in the direction of particular dispatch carts;~~ ~~said main line including~~

a plurality of diverter mechanism mechanisms, ~~each of said diverter mechanisms being positioned at an associated one each of said spurs, said diverter mechanism mechanisms being positioned along said conveying surface and being operable to selectively divert containers generally horizontally from said conveying surface onto the associated one of said spurs; and~~

at least one transport mechanism which transports containers from each of said spurs to a particular dispatch cart juxtaposed with that spur, ~~said at least one transport mechanism that removes containers from each of said spurs, moves the removed containers generally vertically to a position adjacent to an opening in the particular dispatch cart, and inserts the removed containers into the opening in the particular dispatch cart.~~

Claim 2 (previously amended): The system according to claim 1, wherein said at least one transport mechanism is automatically operated and said carts are hand-operated.


Claim 3 (previously amended): The system according to claim 1, wherein said conveying surface is a continuous loop.

Applicants : Douglas E. Olson et al.
Serial No. : 09/600,204
Page : 3 of 10

Claim 4 (previously amended): The system according to claim 1, including another diverter mechanism which diverts containers from a feed line onto said conveying surface.

Claim 5 (previously amended): The system according to claim 1, wherein said at least one transport mechanism lowers containers from each of said spurs to a subjacent cart associated with that spur.

Claim 6 (previously amended): The system according to claim 1, wherein said at least one transport mechanism includes a plurality of stationary transport mechanisms, one associated with each of said spurs.

 Claim 7 (previously amended): The system according to claim 1, wherein said at least one transport mechanism travels between plural ones of said spurs.

Claim 8 (previously amended): The system according to claim 1, wherein said at least one transport mechanism raises a subjacent cart associated with that spur to the level of that spur and moves containers directly from the spur to the cart.

Claim 9 (previously amended): The system according to claim 1, wherein said transport mechanism includes an extendable support member and a vertical lift, said extendable support member being adapted to retrieve containers from said at least one of said spurs and to insert containers to the associated cart, said vertical lift being adapted to move said support member between the vertical level of said one of said spurs and the vertical level of the associated cart.


Claim 10 (previously amended): The system according to claim 9, wherein said extendable support member includes a plurality of fingers which comb between portions of said at least one of said spurs below containers supported on that spur.

Applicants : Douglas E. Olson et al.
Serial No. : 09/600,204
Page : 4 of 10

Claim 11 (previously amended): The system according to claim 10, wherein said spur includes a conveying surface made up of a plurality of roller members and wherein said fingers comb between said roller members.

Claim 12 (previously amended): The system according to claim 10, wherein said vertical lift elevates said fingers upwardly in order to retrieve a container from said one of said spurs and elevates said fingers downwardly in order to insert a container to the associated cart.

Claim 13 (previously amended): The system according to claim 9, wherein said extendable support member is extended according to a controlled acceleration profile.

 Claim 14 (previously amended): The system according to claim 13, wherein said extendable support member is extended by a variable frequency motor.

Claim 15 (previously amended): The system according to claim 9, wherein said vertical lift is servo controlled.

Claim 16 (previously amended): The system according to claim 1, including a plurality of said transport mechanisms, wherein each of said transport mechanisms is inhibited from operation when a cart serviced by that transport mechanism is being replaced.

Claim 17 (previously amended): The system according to claim 16, wherein other transport mechanisms are not inhibited from operation when one of said transport mechanisms is inhibited from operation.

Claim 18 (previously amended): The system according to claim 1, wherein said conveying surface is defined by a plurality of powered rollers.

Claim 19 (currently amended): The system according to ~~according to~~ claim 1, wherein each of said diverter mechanisms is a pop-up diverter, said pop-up diverter being operable to raise

Applicants : Douglas E. Olson et al.
Serial No. : 09/600,204
Page : 5 of 10

one or more diverter portions to convey a container positioned at said pop-up diverter in a direction which is generally transverse to the conveyor direction.

Claim 20 (previously amended): The system according to claim 1, wherein said spurs are arranged on both sides of said conveying surface and wherein each of said diverter mechanisms is bidirectional.

Claim 21 (previously amended): The system according to claim 1, including an alignment device positioned adjacent each of said carts which aligns containers being inserted to the associated cart.

Claim 22 (previously amended): The system according to claim 21, wherein said alignment device is funnel shaped.

Claim 23 (previously amended): The system according to claim 10, wherein said fingers are extendable horizontally in order to engage a container.

Claim 24 (previously amended): The system according to claim 10, wherein said extendable support member further includes a stripper member extendable horizontally independently of said fingers in order to slide containers off of said fingers.

Claim 25 (previously amended): The system according to claim 1, including a plurality of cart areas, each of said cart areas having an enclosure with a movable gate that can be selectively opened, said movable gates being selectively opened at some of said cart areas to allow for removal of the carts at said some of said cart areas while other carts in other of said cart areas are being loaded.


Claims 26-31 (canceled)

Applicants : Douglas E. Olson et al.
Serial No. : 09/600,204
Page : 6 of 10

Claim 32 (previously added): The system according to claim 1, wherein said conveying surface is defined by a line shaft conveyor.

Claim 33 (new): The system according to claim 1, wherein said conveying surface comprises at least one of conveyor rollers and a conveying belt.

Claim 34 (new): The system according to claim 1, wherein said plurality of spurs extend generally horizontally from at least one side of said main line.



Claim 35 (new): The system according to claim 34, wherein said diverter mechanisms are operable to selectively divert containers generally horizontally from said conveying surface onto the associated one of said spurs.

Claim 36 (new): The system according to claim 1, wherein said main line includes said diverter mechanisms.

Claim 37 (new): The system according to claim 1, wherein said at least one transport mechanism removes containers from each of said spurs, moves the removed containers generally vertically to a position adjacent to an opening in the particular dispatch cart, and inserts the removed containers into the opening in the particular dispatch cart.
